### {In Archive} Office Updates - NOTE

Alexandra Sullivan to: Murray, Steve

Cc: Kristine\_Mikulka, Denessa Moses, Alyssa Quarforth

Archive:

This message is being viewed in an archive.

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7 4 1			

Steve,

In one round of SRA questions on our new office models, you asked about how we would combine the binned percent heated/cooled values across multiple spaces. In a subsequent email, you pointed out that the question did not matter since the direction was to compute a prediction for each space rather than the whole building.

This observation of yours caused us to revisit the direction we provided. In fact, we do NOT want to abandon the existing approach of combing all the office spaces together and creating one prediction. We are going to continue that general approach, and we will provide more specifics about what this means for each attribute (including the % values).

I am revising the documentation on office to include this change, and also to fill in some of those questions I know you are eagerly awaiting (such as the garage format). I will have the revision to you by the end of the day tomorrow. Mostly, I am updating some of the yellow-highted items. However, I am also going to change the instruction on how to combine multiple office spaces within one building. I wanted to give you a heads up since I know this is a big difference. I hope that on the whole this is easier for you since it is more consistent with the existing approach.

Please give me a call if you would like to discuss. Otherwise, you can expect some updated documentation from me tomorrow.

Kris - I am going make an appendix to that direction document that includes the rounds of q&a that we have had so far. I hope this will help with your goal of keeping the documentation in one place.

Thanks.

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov 04/12/2007 12:39 PM



# {In Archive} RE: Multiple Tenant Structure in PM

Gibbs, Michael to: Alexandra Sullivan, Alyssa Quarforth

This message is being viewed in an archive.

04/12/2007 02:52 PM

Dan Beer Bleebject					

### Alexandra:

I have a conference call in 20 minutes...but I have a couple of quick points.

1. You are correct. Due to non-linearity of the natural log terms, you cannot just sum the pieces.



I'd like to think about this a bit and get back to you later this afternoon.

### Michael

----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov]

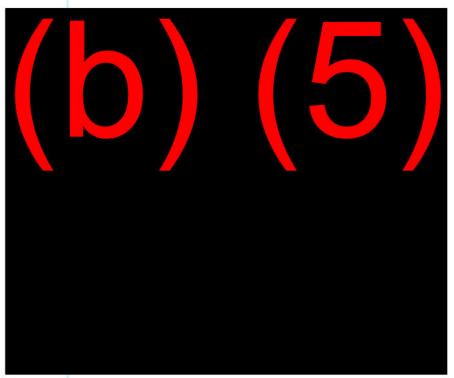
Sent: Thursday, April 12, 2007 9:31 AM

To: Quarforth.Alyssa@epamail.epa.gov; Gibbs, Michael

Subject: Multiple Tenant Structure in PM

Aly & Michael,





Thank you,

Alexandra Sullivan

U.S. EPA
ENERGY STAR
Mail Code 6202J
Washington, DC 20460
202.343.9040
sullivan.alexandra@epa.gov

(See attached file: Combine\_Scenarios.xls)



# {In Archive} RE: Multiple Tenant Structure in PM Gibbs, Michael to: Alexandra Sullivan, Alyssa Quarforth

04/12/2007 05:55 PM

This message has been replied to.

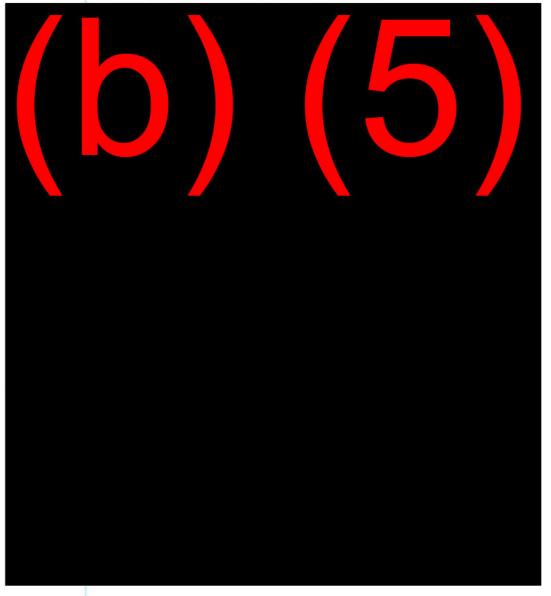
Archive:

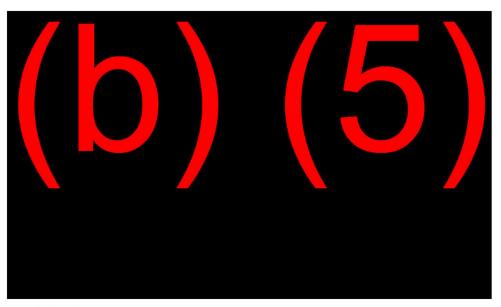
This message is being viewed in an archive.

	Datkertilebject				
- 3	Alexandra Sullivan	04/12/2007 06:25 PM	RE: Multiple Tenant Structure		

Alexandra and Aly -

OK. Not sure I have a whole lot more to add.





### Michael

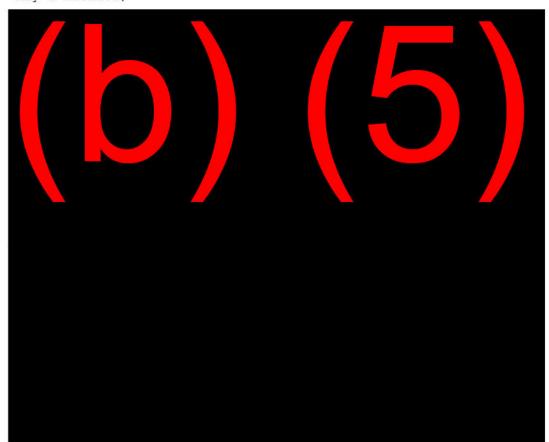
----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov] Sent: Thursday, April 12, 2007 9:31 AM

To: Quarforth.Alyssa@epamail.epa.gov; Gibbs, Michael

Subject: Multiple Tenant Structure in PM

Aly & Michael,



(b) (5)

# (b)(5)

Thank you,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

(See attached file: Combine\_Scenarios.xls)

# {In Archive} RE: Multiple Tenant Structure in PM

Alexandra Sullivan to: Gibbs, Michael

Cc: Alyssa Quarforth

Archive:

This message is being viewed in an archive.

	Sender	Sender	Date	Subjec
2	Gibbs, Michael	Gibbs, Michael	04/12/2007 05:55 PM	← RE: Mu
9	Alexandra Sullivan	Alexandra Sullivan	04/12/2007 06:25 PM	F

04/12/2007 06:25 PM

Michael/Aly



### **WKHRS8**

\*\* DEF: ["Normally open" means the hours when the usual activities occur.] EXP: [If the hours vary for different parts of the building, ask for the hours for most of the building, based on square footage.] \*\*

How many total hours per week is the building normally open?

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Gibbs, Michael" <MGibbs@icfi.com>



"Gibbs, Michael" <MGibbs@icfi.com> 04/12/2007 05:53 PM

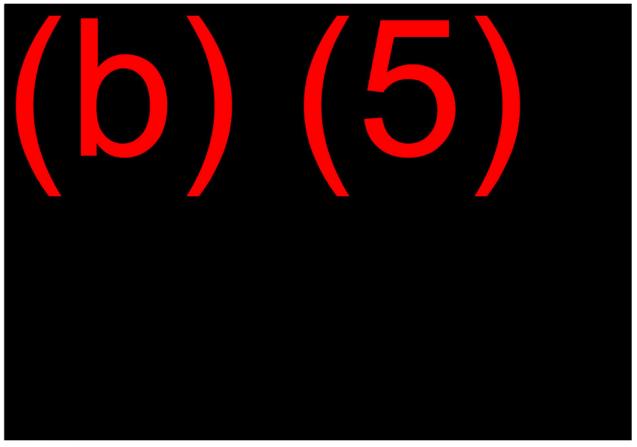
To Alexandra Sullivan/DC/USEPA/US@EPA, Alyssa Quarforth/DC/USEPA/US@EPA

CC

Subject RE: Multiple Tenant Structure in PM

Alexandra and Aly -

OK. Not sure I have a whole lot more to add.



### Michael

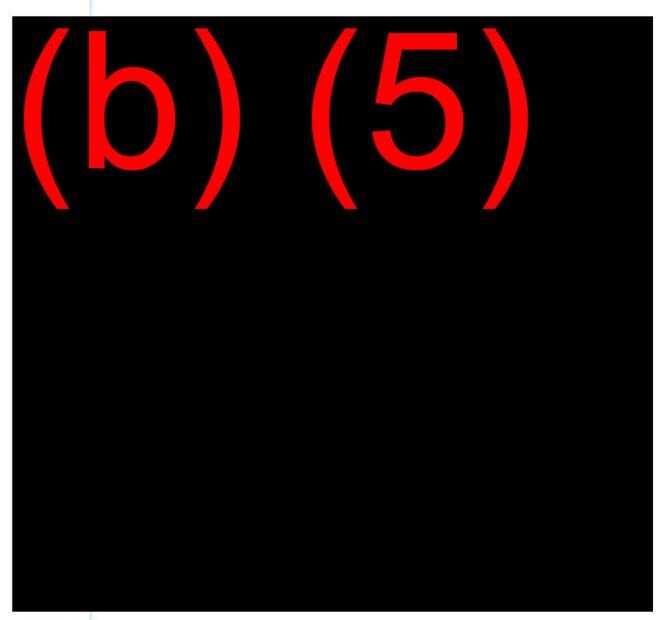
----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov] Sent: Thursday, April 12, 2007 9:31 AM To: Quarforth.Alyssa@epamail.epa.gov; Gibbs, Michael

Subject: Multiple Tenant Structure in PM

Aly & Michael,





Thank you,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

(See attached file: Combine\_Scenarios.xls)



# {In Archive} RE: Multiple Tenant Structure in PM

Gibbs, Michael to: Alexandra Sullivan

Cc: Alyssa Quarforth

04/12/2007 07:12 PM

History: Archive:

This message has been replied to.

This message is being viewed in an archive.

	Sender	Sender	Date	Subjec
۵	Gibbs, Michael	Gibbs, Michael	04/12/2007 07:12 PM	∳ RE: Mι
3	Alexandra Sullivan	Alexandra Sullivan	04/13/2007 08:17 AM	F



MJG

----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov] Sent: Thursday, April 12, 2007 3:25 PM

To: Gibbs, Michael

Cc: Quarforth.Alyssa@epamail.epa.gov

Subject: RE: Multiple Tenant Structure in PM

Michael/Aly



WKHRS8

\*\* DEF: ["Normally open" means the hours when the usual activities

occur.] EXP: [If the hours vary for different parts of the building, ask

for the hours for most of the building, based on square footage.] \*\*

How many total hours per week is the building

normally open?

Alexandra Sullivan

U.S. EPA
ENERGY STAR
Mail Code 6202J
Washington, DC 20460
202.343.9040
sullivan.alexandra@epa.gov

"Gibbs, Michael" <MGibbs@icfi.com

To

04/12/2007 05:53

Sullivan/DC/USEPA/US@EPA, Alyssa PM

Quarforth/DC/USEPA/US@EPA

CC

Subject

Tenant Structure in

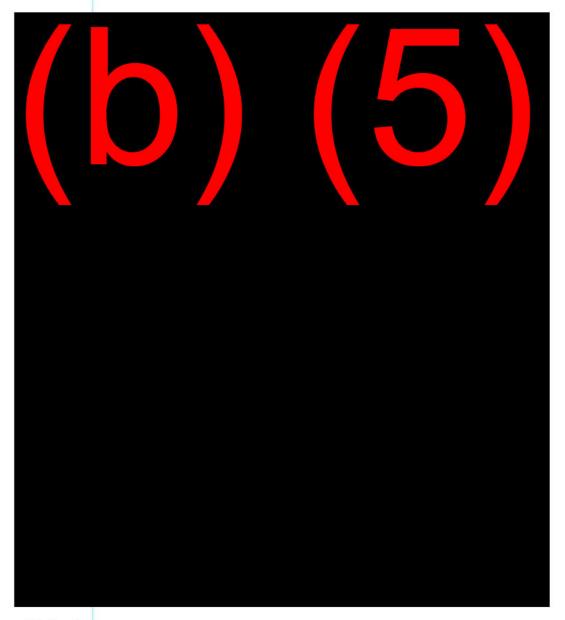
Alexandra

RE: Multiple

PM

Alexandra and Aly -





### Michael

----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov] Sent: Thursday, April 12, 2007 9:31 AM

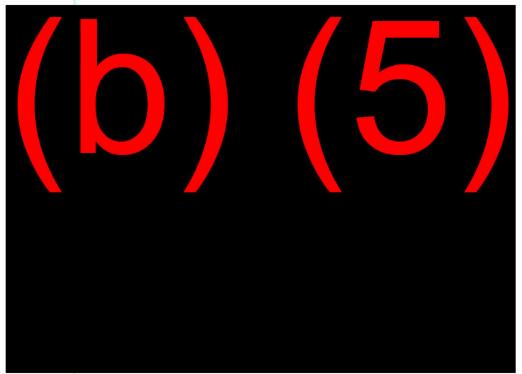
To: Quarforth.Alyssa@epamail.epa.gov; Gibbs, Michael

Subject: Multiple Tenant Structure in PM

Aly & Michael,



# 



Thank you,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

(See attached file: Combine\_Scenarios.xls)

# {In Archive} RE: Multiple Tenant Structure in PM Alexandra Sullivan to: Gibbs, Michael

Cc: Alyssa Quarforth Archive:

This message is being viewed in an archive.

Gibbs, Michael		
Gibbs, Michael	04/12/2007 07:12 PM	← RE: Mu
Alexandra Sullivan	04/13/2007 08:17 AM	F
	Alexandra Sullivan	Alexandra Sullivan 04/13/2007 08:17 AM

04/13/2007 08:17 AM

Michael,



Thanks,

Alexandra Sullivan

U.S. EPA **ENERGY STAR** Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Gibbs, Michael" <MGibbs@icfi.com>



"Gibbs, Michael" <MGibbs@icfi.com> 04/12/2007 07:11 PM

To Alexandra Sullivan/DC/USEPA/US@EPA

cc Alyssa Quarforth/DC/USEPA/US@EPA

Subject RE: Multiple Tenant Structure in PM

# (b)(5)

### MJG

----Original Message-----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov] Sent: Thursday, April 12, 2007 3:25 PM

To: Gibbs, Michael

Cc: Quarforth.Alyssa@epamail.epa.gov

Subject: RE: Multiple Tenant Structure in PM

### Michael/Aly



### WKHRS8

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How many total hours per week is the building normally open?

### Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Gibbs, Michael" <MGibbs@icfi.com

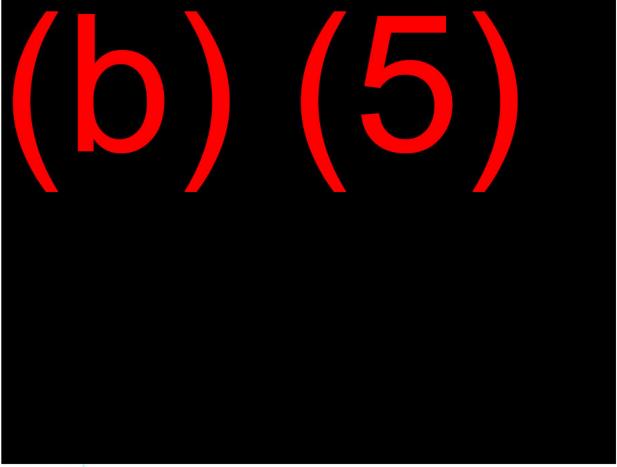
04/12/2007 05:53 PM То

Alexandra
Sullivan/DC/USEPA/US@EPA, Alyssa
Quarforth/DC/USEPA/US@EPA

CC

Subject

RE: Multiple Tenant Structure in PM



### Michael

----Original Message----

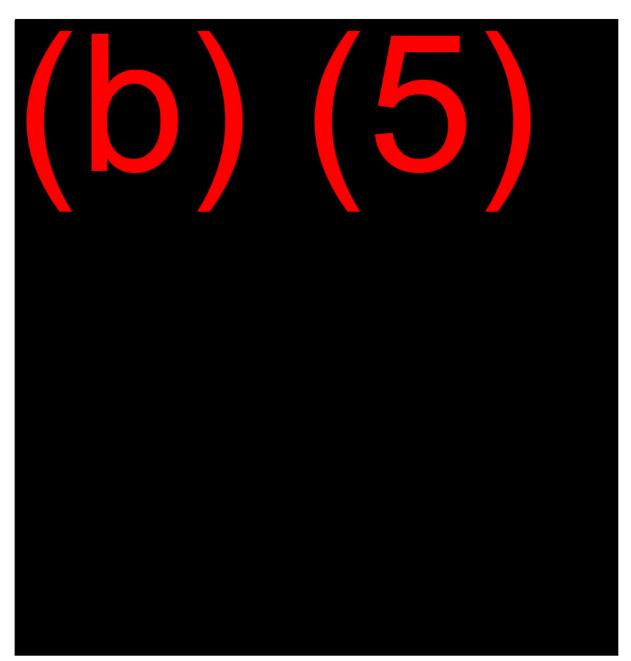
From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov] Sent: Thursday, April 12, 2007 9:31 AM

To: Quarforth.Alyssa@epamail.epa.gov; Gibbs, Michael

Subject: Multiple Tenant Structure in PM

Aly & Michael,





Thank you,

Alexandra Sullivan

U.S. EPA
ENERGY STAR
Mail Code 6202J
Washington, DC 20460
202.343.9040
sullivan.alexandra@epa.gov

(See attached file: Combine\_Scenarios.xls)



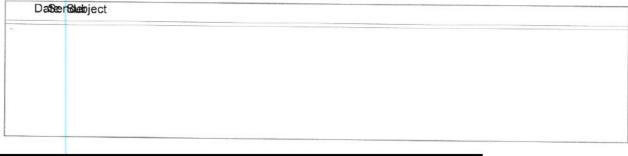
## {In Archive} RE: Multiple Tenant Structure in PM

Gibbs, Michael to: Alexandra Sullivan

Cc: Alyssa Quarforth

This message is being viewed in an archive.

04/13/2007 11:28 AM





### Michael

----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov]

Sent: Friday, April 13, 2007 5:17 AM

To: Gibbs, Michael

Cc: Quarforth.Alyssa@epamail.epa.gov

Subject: RE: Multiple Tenant Structure in PM

Michael,





Thanks,

Alexandra Sullivan

U.S. EPA
ENERGY STAR
Mail Code 6202J
Washington, DC 20460
202.343.9040
sullivan.alexandra@epa.gov

"Gibbs, Michael" <MGibbs@icfi.com

>

To

04/12/2007 07:11 Sullivan/DC/USEPA/US@EPA

PM

CC

Quarforth/DC/USEPA/US@EPA

Subject

Tenant Structure in

Alexandra

Alyssa

RE: Multiple

PM



# (b) (5)

MJG

----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov] Sent: Thursday, April 12, 2007 3:25 PM

To: Gibbs, Michael

Cc: Quarforth.Alyssa@epamail.epa.gov

Subject: RE: Multiple Tenant Structure in PM

Michael/Aly



WKHRS8

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Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Gibbs, Michael" <MGibbs@icfi.com

To

Alexandra

04/12/2007 05:53 Sullivan/DC/USEPA/US@EPA, Alyssa PM

Quarforth/DC/USEPA/US@EPA

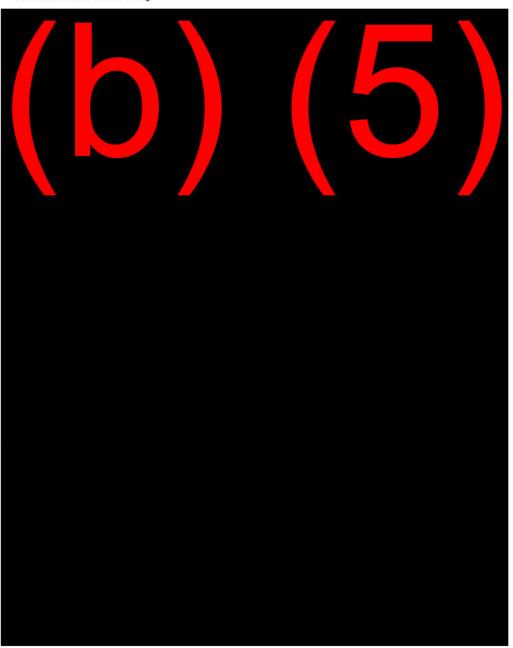
Subject

Tenant Structure in

RE: Multiple

PM

Alexandra and Aly -





Michael

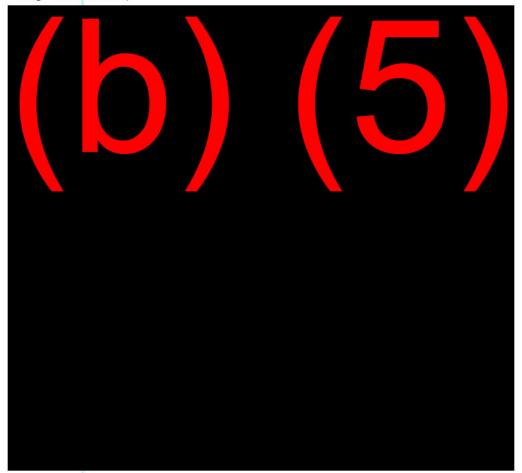
----Original Message----

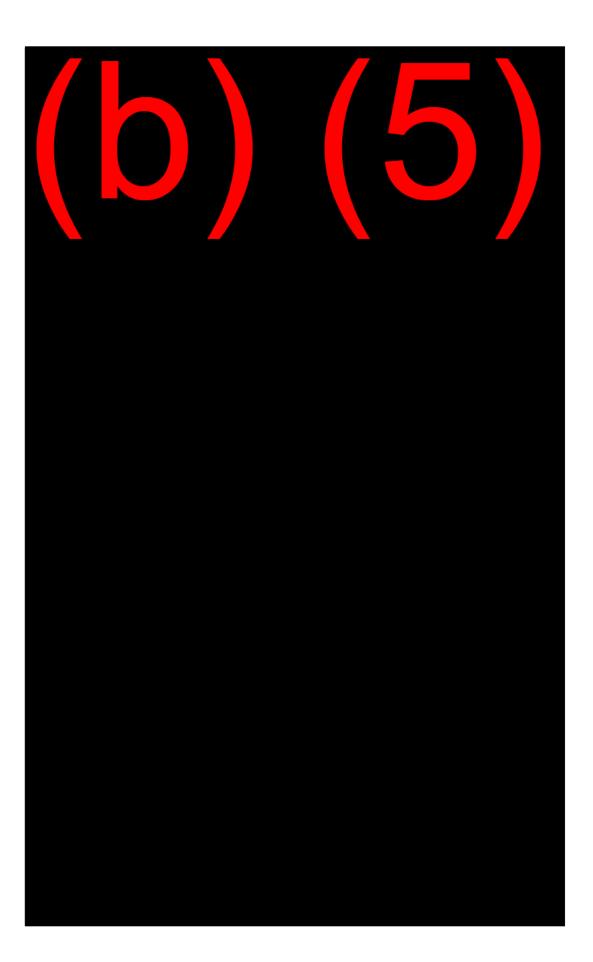
From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov]

Sent: Thursday, April 12, 2007 9:31 AM To: Quarforth.Alyssa@epamail.epa.gov; Gibbs, Michael

Subject: Multiple Tenant Structure in PM

Aly & Michael,





# (b) (5)

Thank you,

Alexandra Sullivan

U.S. EPA
ENERGY STAR
Mail Code 6202J
Washington, DC 20460
202.343.9040
sullivan.alexandra@epa.gov

(See attached file: Combine\_Scenarios.xls)

# {In Archive} Re: Emailing: 497 IDs.xls

Alexandra Sullivan to: Gibbs, Michael

05/03/2007 05:38 PM

Archive:

This message is being viewed in an archive.

2	Gibbs, Michael	Emailing: 497 IDs.xls
<i>3</i>	Alexandra Sullivan	Michael, The building that doesn't correspond is ID number 5074.

Michael,

The building that doesn't correspond is ID number 5074.



I'm going to head down to the gym now, but I'll be back at my desk in about an hour.

Let me know what you find with observation 5074,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Gibbs, Michael" < MGibbs@icfi.com>



"Gibbs, Michael" <MGibbs@icfi.com> 05/03/2007 05:09 PM

To Alexandra Sullivan/DC/USEPA/US@EPA

CC

Subject Emailing: 497 IDs.xls

 $<<\!497~{\rm IDs.xls}>>$  The message is ready to be sent with the following file or link attachments:

497 IDs.xls

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.



497 IDs.xls



# {In Archive} RE: Emailing: 497 IDs.xls

Gibbs, Michael to: Alexandra Sullivan

o: Alexandra Sullivan 05/03/2007 06:36 PM

History:

This message has been replied to.

Archive:

This message is being viewed in an archive.

Gibbs, Michael

RE: Emailing: 497 IDs.xls

Alexandra Sullivan

Good to know that we're still getting the same results. I'll review your re

You are correct. In the other versions of the filtering, this observation was filtered out by the Campus variable (Facil8). So, when I filtered on single activity, it did not come up because it was already out.

I'll fix it.

### Michael

----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov]

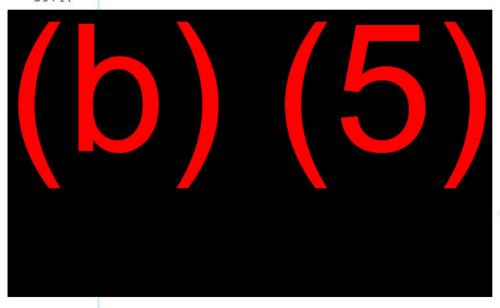
Sent: Thursday, May 03, 2007 2:38 PM

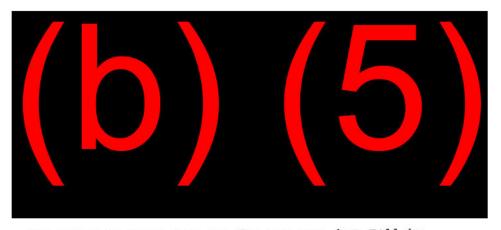
To: Gibbs, Michael

Subject: Re: Emailing: 497 IDs.xls

Michael,

The building that doesn't correspond is ID number 5074.





I'm going to head down to the gym now, but I'll be back at my desk in about an hour.

Let me know what you find with observation 5074,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Gibbs, Michael" <MGibbs@icfi.com

To

05/03/2007 05:09 Sullivan/DC/USEPA/US@EPA

DM

CC

Subject

IDs.xls

Alexandra

Emailing: 497

<<497 IDs.xls>>
The message is ready to be sent with the following file or link attachments:

### 497 IDs.xls

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

(See attached file: 497 IDs.xls)

# {In Archive} RE: Emailing: 497 IDs.xls

Alexandra Sullivan to: Gibbs, Michael

05/03/2007 06:57 PM

Archive:

This message is being viewed in an archive.

2	Gibbs, Michael	RE: Emailing: 497 IDs.xls
<b>3</b>	Alexandra Sullivan	Good to know that we're still getting the same results. I'll review your re

Good to know that we're still getting the same results.

I'll review your regression results from home in the morning, and I will be in the office after my dental appointment.

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Gibbs, Michael" < MGibbs@icfi.com>



"Gibbs, Michael" <MGibbs@icfi.com>

05/03/2007 06:36 PM

To Alexandra Sullivan/DC/USEPA/US@EPA

CC

Subject RE: Emailing: 497 IDs.xls

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Michael

----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov]

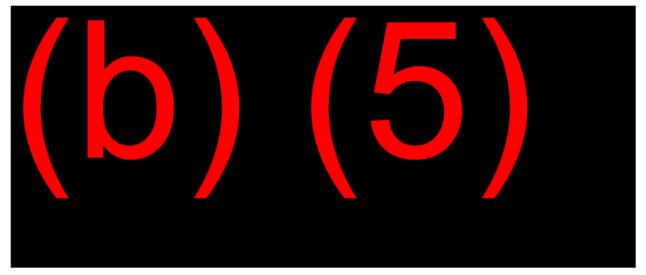
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To: Gibbs, Michael

Subject: Re: Emailing: 497 IDs.xls

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Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

> "Gibbs, Michael" <MGibbs@icfi.com

05/03/2007 05:09 PM

Alexandra Sullivan/DC/USEPA/US@EPA

CC

To

Subject

Emailing: 497 IDs.xls

<<497 IDs.xls>> The message is ready to be sent with the following file or link

### attachments:

497 IDs.xls

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled. (See attached file: 497 IDs.xls)



{In Archive} RE: Final Model Replication Gibbs, Michael

to:

Alexandra Sullivan 05/06/2007 03:48 PM

Cc:

Alyssa Quarforth Hide Details

From: "Gibbs, Michael" <MGibbs@icfi.com>
To: Alexandra Sullivan/DC/USEPA/US@EPA,
Cc: Alyssa Quarforth/DC/USEPA/US@EPA
History: This message has been replied to.

Archive: This message is being viewed in an archive.

### 4 Attachments



Gamma Fit Final.xls Office Final 01 477.piz Office Final 01 498.piz Office Final 01 349.piz

### Alexandra:

Everything seems to match up fine. I get identical results for 349, 477, and 498 including the centering values, regression results, solved alpha and beta, and resulting lookup table. As we discussed previously, the results match to many digits and differ only way out to the right.

I also created the lookup table for the 477 case so we could see how similar the 349, 477, and 498 lookup tables appear to be. Visually, it looks like the 498 result is closer to the 477 result for the fitted/smoothed lookup table.

Attached is an Excel file with the fitted results for the three sets. The PIZ files are the analysis spreadsheets themselves.

Michael Gibbs ICF International

From: Sullivan, Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov]

Sent: Fri 5/4/2007 1:45 PM

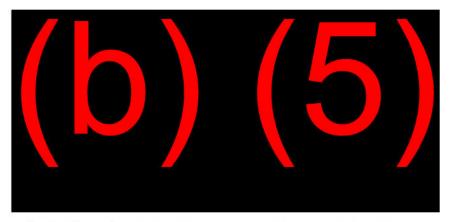
To: Gibbs, Michael

**Cc:** Quarforth.Alyssa@epamail.epa.gov **Subject:** Final Model Replication

### Michael,

Per our talk today, we will proceed with a final model format that does not include a campus filter (n=498 observations). I have replicated your results for that model from yesterday, and the attached excel includes my lookup table calculation. Can you please verify that you get the same alpha/beta/lookup?





Finally, I have also attached the summary word document that explains the model, and I've updated the values to reflect the final (n=498) model.

Thanks,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

(See attached file: FinalModelComparisons.xls)(See attached file: Office\_Model\_Final.doc)

# {In Archive} RE: Final Model Replication

Alexandra Sullivan to: Gibbs, Michael

Cc: Alyssa Quarforth

This message is being viewed in an archive.

Archive: Gibbs, Michael RE: Final Model Replication Alexandra Sullivan Michael, Glad everything matches up, and the additional curve graphs

Michael.

Glad everything matches up, and the additional curve graphs are helpful. Thank you for all of your help.

Alexandra Sullivan

U.S. EPA **ENERGY STAR** Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Gibbs, Michael" < MGibbs@icfi.com>



"Gibbs, Michael" <MGibbs@icfi.com> 05/06/2007 03:47 PM

To Alexandra Sullivan/DC/USEPA/US@EPA

05/07/2007 09:00 AM

cc Alyssa Quarforth/DC/USEPA/US@EPA

Subject RE: Final Model Replication

#### Alexandra:

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Michael Gibbs

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov]

Sent: Fri 5/4/2007 1:45 PM

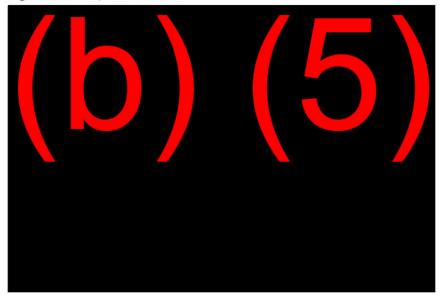
To: Gibbs, Michael

Cc: Quarforth.Alyssa@epamail.epa.gov

Subject: Final Model Replication

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Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

(See attached file: FinalModelComparisons.xls)(See attached file:							
		M A		oea .	020		
Office_Mod	el_Final.doc)	Gamma Fit Final.xls	Office Final 01 477.piz	Office Final 01 498.piz	Office Final 01 349.piz		



# {In Archive} Gamma Dist Results for Office/Bank/Courthse Model Terry Sharp to: Alexandra Sullivan 05/1

05/14/2007 02:31 PM

Archive: This message is being viewed in an archive.

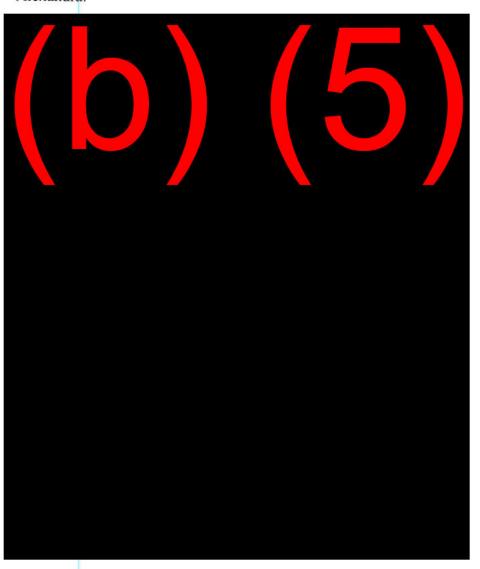
Terry Sharp Gamma Dist Results for Office/Bank/Courthse Model

1 attachment



Office\_Model\_Final.doc

Alexandra:



# (b) (5)



{In Archive} Score Change Report, 5/25/2007

Murray, Steve

to:

Alexandra Sullivan

05/25/2007 01:34 AM

Cc:

Denessa Moses, "Mikulka, Kristine"

Hide Details

From: "Murray, Steve" <Steve\_Murray@sra.com>
To: Alexandra Sullivan/DC/USEPA/US@EPA,

Cc: Denessa Moses/DC/USEPA/US@EPA, "Mikulka, Kristine"

<Kristine Mikulka@sra.com>

History: This message has been replied to and forwarded. Archive: This message is being viewed in an archive.

#### 1 Attachment

score comparison 20070525.piz

Hi Alexandra:

Attached is the score change report for the new Office equations (and other changes) that will be going into Production in a couple of months. Due to its size, I've ZIPped up the file, and re-named it ".piz" instead of ".zip".

The first spreadsheet is a list of all of the buildings used in this analysis. (They were taken from the Production database in an export a couple of weeks ago. We've held onto a copy of that export, and I'm running this on a standalone internal database – so we can refresh the data and re-run this whenever we wish.) Most of the fields should be fairly self-explanatory – here's some details on ones that aren't:

Old Src EUI – the actual (non-weather normalized) Source EUI for the building currently in PM New Src EUI – the new actual Source EUI for the building, using the new site-to-source conversion factors.

Delta Src EUI/Delta Src EUI % - the change in Source Energy EUI after those changes were in place. You'll notice many of the buildings showed a change between 10.1-10.9%. This is indicative of a building using all electrical energy, since the electrical site-to-source conversion factor changed from 3.013 to 3.34.

Current Rating – the rating for this building currently in PM

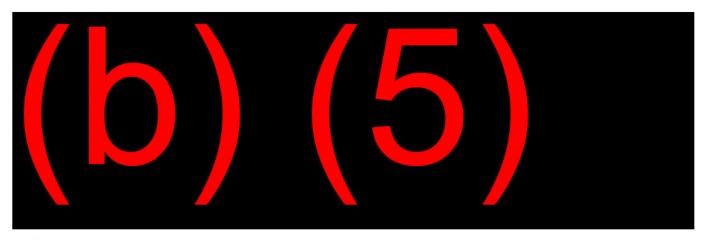
Energy Rating – the rating for this building, using only the new site-to-source conversion numbers and the new weather norm routine (which will be used for all building/space types in the release)

New Rating – the rating for this building, using the energy changes from the last column, plus space type changes (new Office space type equation, new Parking space type equation, corrected HDDxHeatPct attribute for K-12 Schools).

The second sheet shows a breakdown by Building type, with a histogram showing how many of the buildings changed by how many points in their ratings. (Previous versions of this histogram, done 5 years ago when we launched the system, used the absolute values of changes, since we were concentrating on accuracy of the equation conversion. Here, I've separated out negative score changes from positive score changes, since I have faith in the accuracy of these changes, but will we need to handle customer issues different when a rating goes up 10 points as opposed to going down 10 points). I've also included a "Cum %" column, which shows the Cumulative Percent of buildings in that building type with a change up to and including that number.

So, for example, for Hospitals, 75.8% of buildings had some sort of negative score change. 82.8% had either a negative change, or no change. (Hence, 7% of Hospitals will have no change in their rating.)





Thanks, Steve

## {In Archive} Re: Score Change Report, 5/25/2007

Alexandra Sullivan to: Murray, Steve

Cc: Denessa Moses, "Mikulka, Kristine", Alyssa Quarforth

Archive: This message is being viewed in an archive.

Murray, Steve Score Change Report, 5/25/2007

Alexandra Sullivan Steve, This is a good first cut, and I have only begun to look at the infe

05/29/2007 09:51 AM

Steve,



Thanks,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov



Template.Changes.xls

Question and response, 2.1.1.3:

[Question] What information would EPA like to see in the analysis besides the differences between the old and new ratings? Since the ratings will change on existing buildings and new buildings keep coming up, how do they want to see the reporting of these and test?

This is hard to define, since we cannot anticipate all problems. Generally we will want: Building ID, Location, Owner/Partner, Old Score, New Score, square foot, type of building, indication of whether they have a label and what years total site energy, total source energy, old WN Source, new WN source. We would also see the average value for the space attributes for each space type in the building.

As on the attached, this should be summarized in Excel, with 1 row per building. (I didn't put in a column for each attribute for each space, I just did a few to show the

general idea...but we will want all attributes).

"Murray, Steve" <Steve\_Murray@sra.com>



"Murray, Steve" <Steve\_Murray@sra.com> 05/25/2007 01:32 AM

- To Alexandra Sullivan/DC/USEPA/US@EPA

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So, for example, for Hospitals, 75.8% of buildings had some sort of negative score change. 82.8% had either a negative change, or no change. (Hence, 7% of Hospitals will have no change in their rating.)





Thanks, Steve



score\_comparison\_20070525.piz



# {In Archive} RE: Score Change Report, 5/25/2007

Mikulka, Kristine to: Alexandra Sullivan

Cc: Denessa Moses, Alyssa Quarforth, "Murray, Steve"

This message is being viewed in an archive.

ė.	Mikulka, Kristine	RE: Score Change Report, 5/25/2007	

#### Alexandra -

Steve has already begun working on this and will have the updated spreadsheet to you by COB Thursday. It will be waiting in your inbox when you get back from the retreat on Friday.

Thanks, Kristine

Kristine Mikulka Project Manager kristine mikulka@sra.com 703-284-6913

----Original Message----

From: Sullivan.Alexandra@epamail.epa.gov [mailto:Sullivan.Alexandra@epamail.epa.gov]

Sent: Tuesday, May 29, 2007 9:52 AM

To: Murray, Steve

Cc: Moses.Denessa@epamail.epa.gov; Mikulka, Kristine;

Quarforth.Alyssa@epamail.epa.gov

Subject: Re: Score Change Report, 5/25/2007

Steve,



05/29/2007 10:47 AM

# (b) (5)

Thanks,

Alexandra Sullivan

U.S. EPA
ENERGY STAR
Mail Code 6202J
Washington, DC 20460
202.343.9040
sullivan.alexandra@epa.gov

(See attached file: Template.Changes.xls)

Question and response, 2.1.1.3:
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"Murray, Steve" <Steve\_Murray@sr a.com>

To

Alexandra

05/25/2007 01:32 Sullivan/DC/USEPA/US@EPA

MA

CC

Moses/DC/USEPA/US@EPA,

Denessa

"Mikulka,

Kristine"

<Kristine Mikulka@sra.com>

Subject

Score Change

Report, 5/25/2007

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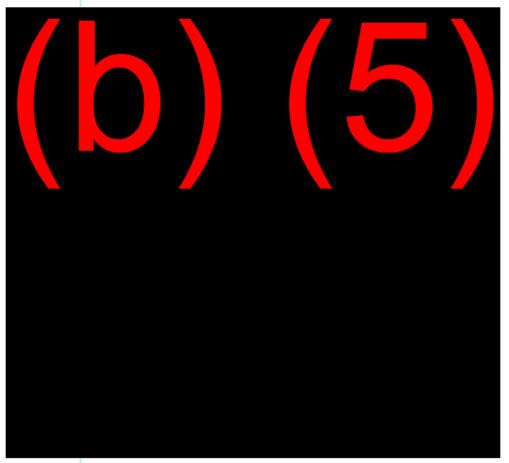
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(Hence, 7% of Hospitals will have no change in their rating.)





Thanks, Steve

(See attached file: score\_comparison\_20070525.piz)



### {In Archive} Score comparison report

Mikulka, Kristine to: Denessa Moses, Alexandra Sullivan

05/31/2007 05:41 PM

History:

This message has been replied to and forwarded.

Archive:

This message is being viewed in an archive.

Daßer Gleben ject						
• •	Alexandra Sullivan	06/04/2007 09:11 AM		Re: Score comparison report		
3	Alexandra Sullivan	06/06/2007 09:15 AM	4	Re: Score comparison report		

#### Denessa and Alexandra -

Due to its size, the ZIPped file has been uploaded to the SRA FTP site. Just log in anonymously to:

#### ftp://ftp.sra.com

Navigate to the /xfer directory, and then to /PortfolioManager. The file is called "score\_comparison.zip" (it's also the only file in the directory).

The first group of columns match what Alexandra laid out in her Template file, with the addition of a column for "Total Site Energy".

To explain some of the less-obvious column names:

Old Score – the benchmark rating that the facility currently gets in PM New Score – the new rating, after everything is updated (new Office space type equation, new Parking space type equation, new weather norm, new site-to-source conversion factors, etc.)

Total Sq Ft (w/o Parking) – the total floor space of the building, not including any parking spaces (formerly called Garage or Open Parking Lots)

Total Sq ft (w/Parking) – the total floor space, including any parking spaces

NWN Source – the total actual (non-weather-normalized) source energy consumption

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All of the columns after that are the space attributes for that building. These are listed alphabetically, with the space type name first, then the attribute. (e.g. BANK\_FLOOR\_AREA, BANK\_HOURS, etc.)

There is only one row per building, so all attributes are listed only once -

hence, if there are two Office spaces in the building, then the value for OFFICE\_FLOOR\_SPACE will be the sum of their floor spaces, while the entry for OFFICE\_HOURS will be their average hours, weighted by floor space.

Some help with terminology:

CDC = Computer Data Center
DORM = Residence/Dormitory
ECONOMY = Hotel (Economy and Budget)
MIDSCALE\_WFB = Hotel (Midscale with Food and Beverage)
MIDSCALE\_WOFB = Hotel (Midscale w/o Food and Beverage)

AC = Percent of the space that is air-conditioned HEATED = Percent of the space that is heated COOKING = Is there cooking on site?

PARKING\_ENCLOSED – the floor space in the parking area that is enclosed (i.e. underground garage)
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SUPERMARKET\_CASES = Refrigerated and Freezer Cases SUPERMARKET\_WALKIN = Walk-In Coolers and Freezers

You'll also note that attributes like "Cooking" or "Laundry", which are Yes/No questions, have a numerical value displayed for them. This is the actual numerical value used by the benchmarking equation for the answer given to that question – e.g. if a facility has one K-12 School space, they have answered "Yes" for have cooking on-site, the displayed value is 0.0983. The reason we did this was because it is possible for more than one of these spaces to appear in a building with different answers (i.e. one "Yes", one "No").

If you have any questions, please let us know.

Thanks, Kristine

Kristine Mikulka

Project Manager <u>kristine mikulka@sra.com</u> 703-284-6913

# {In Archive} Re: Score comparison report

Alexandra Sullivan to: Mikulka, Kristine

Cc: Denessa Moses

Archive: This message is being viewed in an archive.

Da Ster Blab ject						
☑	Alexandra Sullivan	06/04/2007 09:11 AM		Re: Score comparison report		
3	Alexandra Sullivan	06/06/2007 09:15 AM	<i>≥</i> >	Re: Score comparison report		

Thanks, Kris.

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Mikulka, Kristine" < Kristine\_Mikulka@sra.com>



"Mikulka, Kristine" <Kristine\_Mikulka@sra.com> 05/31/2007 05:41 PM

To Denessa Moses/DC/USEPA/US@EPA, Alexandra Sullivan/DC/USEPA/US@EPA

06/04/2007 09:11 AM

CC

Subject Score comparison report

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If you have any questions, please let us know.

Thanks, Kristine

Kristine Mikulka

Project Manager kristine mikulka@sra.com 703-284-6913

## {In Archive} Fw: Score comparison report

Alexandra Sullivan to: Alyssa Quarforth

Archive:

This message is being viewed in an archive.

Da‰en6d	Da <b>Sterfold</b> pject					
	×					

FYI.

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

---- Forwarded by Alexandra Sullivan/DC/USEPA/US on 06/04/2007 09:11 AM -----



"Mikulka, Kristine" <Kristine\_Mikulka@sra.com> 05/31/2007 05:41 PM

To Denessa Moses/DC/USEPA/US@EPA, Alexandra Sullivan/DC/USEPA/US@EPA

06/04/2007 09:11 AM

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Subject Score comparison report

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Kristine Mikulka

Project Manager kristine mikulka@sra.com 703-284-6913

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Alexandra Sullivan to: Mikulka, Kristine

Cc: Denessa Moses, Alyssa Quarforth

06/06/2007 09:15 AM

Archive:		This message is being viewed in an archive.			
	Sen	der	Sender	Date	Subjec
İ	Ale	xandra Sullivan	06/04/2007 09:11 AM		Re: Score comparison report
3	Ale	xandra Sullivan	06/06/2007 09:15 AM	÷	Re: Score comparison report

Kris,

Thank you. We are hard at work trying to understand these changes. In the mean time, I wonder if it is possible for you to re-run the query that pulled this data in order to screen out Test facilities and Duplicate Facilities.

For example, there are about 200 offices that I think are samples from SRA (owner names = "Usha Test Organization", "SRA-Test", "E-name"). All of these facilities are nearly identical in energy and operation characteristics, and probably represent fewer than 20 unique combinations of data. And even for the few unique sets of data, it would seem that these are not real buildings.

I understand that some things will be impossible to flag. For example, there are also instances of the identical buildings with different zip codes, which is likely someone playing with the tool. Nonetheless, if the data report of changes could be re-generated to exclude buildings with the word "Test" or "Sample" and to eliminate Duplicates (buildings with everything the same except the building ID), that would be very helpful, as it will help us paint a clearer picture of the data and the impact of the changes on actual buildings.

Thank you,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

"Mikulka, Kristine" <Kristine Mikulka@sra.com>



"Mikulka, Kristine" <Kristine\_Mikulka@sra.com> 05/31/2007 05:41 PM

To Denessa Moses/DC/USEPA/US@EPA, Alexandra Sullivan/DC/USEPA/US@EPA

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Subject Score comparison report



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Kristine Mikulka

Project Manager kristine mikulka@sra.com 703-284-6913



{In Archive} Fwd: here is the memo on different averaging types.... Sudhir Paladugu

to:

Alexandra Sullivan 08/16/2011 08:53 AM

Hide Details

From: Sudhir Paladugu <sudhir.paladugu@gmail.com>

To: Alexandra Sullivan/DC/USEPA/US@EPA, Archive: This message is being viewed in an archive.

2 Attachments





Averaging Memo.docx Averaging Methodology Memo Examples.xls

----- Forwarded message -----

From: Sudhir Paladugu < sudhir.paladugu@gmail.com>

Date: Mon, Aug 15, 2011 at 11:46 PM

Subject: here is the memo on different averaging types....

To: Sullivan. Alexandra@epamail.epa.gov

(b) (5)

Feel free to edit

as you wish. Also the excel tables may not format correctly.

Im coming in early tomorrow so I can definitely work on it before we head to SRA.

See you tomorrow!

Sudhir Paladugu U.S. EPA Energy Star Work: (202) 343-9181 Cell: (805) 403-1911

Sudhir Paladugu U.S. EPA Energy Star Work: (202) 343-9181 Cell: (805) 403-1911

# {In Archive} Re: here is the memo on different averaging types.... Alexandra Sullivan to: Sudhir Paladugu 08/16/2011 08:40 AM This message is being viewed in an archive. here is the memo on different averaging types.... Sudhir Paladugu (50) Alexandra Sullivan Hi Sudhir, I just popped over, but you must have stepped away. I am Sudhir Paladugu ----- Forwarded message ----- From: Sudhir Paladugu <sudhir.p Hi Sudhir. I just popped over, but you must have stepped away. I am actually not able to open the file on my computer. Can you try to re-send it? Thank you, Alexandra Sullivan U.S. EPA **ENERGY STAR** Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

Sudhir Paladugu

I came up with some additional unique rationale...

08/15/2011 11:46:57 PM

From:

Sudhir Paladugu <sudhir.paladugu@gmail.com>

To:

Alexandra Sullivan/DC/USEPA/US@EPA

Date:

08/15/2011 11:46 PM

Subject:

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# (b) (5

Feel

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See you tomorrow!

---

Sudhir Paladugu

U.S. EPA Energy Star Work: (202) 343-9181

Cell: (805) 403-1911

# {In Archive} Re: Fw: here is the memo on different averaging types.... Alexandra Sullivan to: Sudhir Paladugu Archive: This message is being viewed in an archive. Alexandra Sullivan Fw: here is the memo on different averaging types.... Sudhir Paladugu Hey Here it is, I fixed it. Sudhir Paladugu Here is the edited version. Sudhir Paladugu U.S. EPA Alexandra Sullivan Hi Sudhir, This looks good. I made a few small edits and poste

Hi Sudhir,

This looks good. I made a few small edits and posted it to the Wiki. I will distribute it with my Other memo this afternoon.

Also, since you asked for call-in numbers, if you want to call in to Elicia's meeting today (1pm eastern, 10 am pacific) you can at: 866-299-3188; conference code 202-343-9040. You are NOT required to call in but you are certainly welcome to if you'd like.

Thank you,

Alexandra Sullivan

U.S. EPA ENERGY STAR Mail Code 6202J Washington, DC 20460 202.343.9040 sullivan.alexandra@epa.gov

Sudhir Paladugu

Here is the edited version. Sudhir Paladugu U.S....

08/16/2011 05:08:22 PM

From:

Sudhir Paladugu/DC/USEPA/US

To:

Alexandra Sullivan/DC/USEPA/US@EPA

Date:

08/16/2011 05:08 PM

Subject:

Re: Fw: here is the memo on different averaging types....

Here is the edited version.

[attachment "Averaging Memo 8 15.docx" deleted by Alexandra Sullivan/DC/USEPA/US]

Sudhir Paladugu U.S. EPA ENERGY STAR Washington, DC 20460 202.343.9181 paladugu.sudhir@epa.gov

Alexandra Sullivan

Sudhir - I didn't notice this was going to your g...

08/16/2011 08:41:45 AM